

Amendment to the Drawings

The attached sheet of drawing includes a change to FIG. 6B. In FIG. 6B, block 621, "Publication Signature Number" has been amended to recite -- Publication Signature Log Entry --.

Attachments: One Marked-Up Drawing Sheet
 One Replacement Drawing Sheet

REMARKS

The present Amendment amends claims 1, 4 and 5, cancels claim 2 and leaves claims 3 and 6-12 unchanged. Therefore, the present application has pending claims 1 and 3-12.

Drawings

Fig. 6B was amended to correct a minor informality. This amendment is fully supported by the specification.

Specification

The Abstract was amended to correct more clearly describe features of the present invention. This amendment does not add any new matter, and is fully supported by the specification.

Claim Objections

Claims 4 and 5 stand objected to due to informalities noted by the Examiner. Amendments were made to claims 4 and 5 to correct the informalities. Therefore, this objection is overcome and should be withdrawn.

35 U.S.C. §102 Rejections

Claims 1-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent Publication No. 2002/0023221 to Miyazaki et al. ("Miyazaki"). As indicated above, claim 2 was canceled. Therefore, this rejection regarding claim 2 is rendered moot. This rejection regarding the remaining claims 1 and 3-14 is traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1 and 3-14 are not taught or suggested by Miyazaki whether taken individually or in combination any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly describe features of the present invention. Specifically, amendments were made to the claims to more clearly recite that the present invention is directed to a method of publishing signature log entries as recited, for example, in independent claim 1.

The present invention, as recited in claim 1, provides a method of publishing signature log entries having information about signatures generated by a user's side apparatus. The method, which is implemented on a publication agency's side apparatus, includes a user's signature log entry publishing step of receiving and publishing the user's signature log entries generated by the user's side apparatus. The method also includes a user's signature log entry publication notifying step of notifying the users of having published the user's signature log entries. Also included in the method is a signature log updating step of generating a publication agency's signature log entry by using the received user's signature log entries, and updating a signature log having the publication agency's signature log entry produced and registered in past times. The method further includes a publication agency's signature log entry publication step of publishing the generated publication agency's signature log entry. In addition, the method includes a publication agency's signature log entry publication notifying step of notifying the users of having published the publication agency's signature log entry. According to the present invention, the signature log updating step further includes generating the publication agency's signature log entry on the basis of the received user's signature log entries and a plurality of other signature log entries, and recording it in a signature log file as a signature log entry generating step. Also according to the present invention, the signature log updating step further includes recording information of the users and information of the received user's signature log entries in a user information file as a

user information file-updating step. Furthermore, according to the present invention, the user information file includes a type indication, which indicates that the user signature log entries have been produced either at the time of transmission, at the time of reception or at the time of publication, respectively. The prior art does not disclose all of these features.

The above described features of the present invention, as now more clearly recited in the claims, are not taught or suggested by any of the references of record, particularly Miyazaki, whether taken individually or in combination with any of the other references of record.

Miyazaki teaches a method and system for recovering the validity of cryptographically signed digital data. However, there is no teaching or suggestion in Miyazaki of the method of publishing signature log entries as recited in claim 1 of the present invention.

Miyazaki discloses techniques for restoring and/or validating data and/or associated signature log entries. In one embodiment, a method for validating a restored message, having an entry generated in a signature log for a message, where the entry includes cryptographic information associated with the message, is provided. When the message is lost, the restored message is generated in response to request, and is validated using the signature log. In another embodiment, a method for validating a selected log entry by using a signature log having a plurality of recorded log entries is provided. The method includes computing a cryptographic value for the selected log entry, and determining if the cryptographic value is part of another recorded log entry. Miyazaki is quite different from the present invention.

One feature of the present invention, as recited in claim 1, includes where the signature log updating step further includes a user information file-updating step of recording information of the users and information of the received user's signature log entries in a user information file, where the user information file includes a type indication, which indicates that the user signature log entries have been produced either at the time of transmission, at the time of reception or at the time of publication, respectively. This feature is shown, for example, in Fig. 6B and is described on page 21, lines 18-28. As shown in Fig. 6B, the user information file of the present invention includes a type indication (item 618) for each of the signature numbers (item 617). The type indications indicate whether the user signature log entries have been produced at the time of transmission, the time of reception or the time of publication. Miyazaki does not disclose this feature.

For example, as described in paragraph [0045], Miyazaki merely teaches where an Evidence Collection Server 220 collects and stores in a database (DB) information associated with user messages sent over network 210. The information includes a signature log entry associated with the message and who the message is sent to. Miyazaki's Evidence Collection Server 220 maintains in its DB a copy of all the users' signature log entries, and thus acts as a back-up to a user's signature log. This is quite different from the present invention, where the user information file includes a type indication, which indicates that the user signature log entries have been produced either at the time of transmission, at the time of reception or at the time of publication, respectively.

Therefore, Miyazaki fails to teach or suggest "recording information of the users and information of the received user's signature log entries in a user information file as a user information file-updating step."

wherein said user information file includes a type indication, which indicates that said user signature log entries have been produced either at the time of transmission, at the time of reception or at the time of publication, respectively" as recited in claim 1.

Therefore, Miyazaki does not teach or suggest the features of the present invention, as recited in claims 1 and 3-14. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §102(b) rejection of claims 1 and 3-14 as being anticipated by Miyazaki are respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 1 and 3-14.

In view of the foregoing amendments and remarks, Applicants submit that claims 1 and 3-14 are in condition for allowance. Accordingly, early allowance of claims 1 and 3-14 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (referencing Attorney Docket No. 500.42984X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



Donna K. Mason
Registration No. 45,962

DKM/cmd
(703) 684-1120



FIG.6A

SIGNATURE LOG FILE

604	605	606	607	608	609
IDENTIFICATION NUMBER	SIGNATURE NUMBER	TYPE	HASH VALUE OF PREVIOUS SIGNATURE LOG ENTRY	HASH VALUE OF MESSAGE	SIGNATURE OR RECEIVED PUBLICATION SIGNATURE LOG ENTRY INFORMATION
601	Ver.1.0	RECEPTION	$H(S_0)$	—	$31 \parallel H(S_{31})$
602	Ver.1.0	TRANSMISSION	$H(S_1)$	$H(M_2)$	$\text{Sign}(2 \parallel H(S_1) \parallel H(M_2))$
603	Ver.1.0	RECEPTION	$H(S_2)$	—	$15 \parallel H(S_{15})$

FIG.6B

USER INFORMATION FILE

617	618	619	620	621	622
SIGNATURE NUMBER	TYPE	PARTNER INFORMATION	RECEIVED SIGNATURE NUMBER	PUBLICATION SIGNATURE NUMBER	DATE AND TIME
610	NEWSPAPER PUBLICATION	NEWSPAPER	—	—	—
611	RECEPTION	USER A @XXX.co.jp	32	S_{31}	2002.1017.0816
612	TRANSMISSION	USER A @XXX.co.jp	—	—	—
613	RECEPTION	USER B @XXX.co.jp	16	S_{15}	2002.1019.1550
614	TRANSMISSION	USER B @XXX.co.jp	—	—	—
615	NEWSPAPER PUBLICATION	NEWSPAPER	—	S_4	2002.1020
616	LOG TRANSMISSION	USER A @XXX.co.jp	—	—	—